	Λ	В								
1	A Table 1	В	C	D	E	F	G	H	1	J
-	Summary of Potential to Emit									
-	MGPI of Indiana, LLC									
4										
5	Potential to E	mit Befo	re Contro	ls (ton/yr))					
6	Significant Emission Units	PM	PM10	PM2.5	SO2	NOx	VOC	СО	GHG	Total HAPs
7		(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
8	Project-affected emission sources	I	1	1	1	I	ı	1		
9	Proposed direct-fired DDG dryer (Proposed EU-39)	418.8	418.8	418.8	18.8	27.9	418.8	464.3	27,155	39.4
10	DDG Cooler and Transport System (EU-32)	35.8	21.68	7.88	-	-	9.16	-	-	1.28
11	Wet Cake Production, Storage, and Loadout (Proposed EU-40)	-	_	-	-	-	0.05	-	-	0.0022
12	Steam Tube Dryers (EU-32) Serving as Back-up	193.6	193.6	193.6	-	-	860.5	-	-	67.4
13	Emission Units not affected (no change from prior permit representations)				,			,		
14	One (1) pneumatic conveyor, identified as EU-11	189.2	189.2	16.1	-	-	-	-	-	-
15	One (1) corn receiving and storage system, identified as EU-12 (Stack S-111)	225.3	225.3	19.1	-	-	-	-	-	-
16	One (1) grain transport system, identified as EU-12 (Stack S-112)	20.3	20.3	1.73	-	-	-	-	-	-
17	Seven (7) storage bins, collectively identified as EU-13	20.3	20.3	1.73	-	-	-	-	-	-
18	Six (6) hammermills, collectively identified as EU-14	90.1	90.1	7.66	-	-	-	-	-	-
19	EU-21, which consists of fourteen (14) open fermenters	-	-	-	-	-	7.8	-	-	0.04
20	DDGS Storage (EU-34)	29.8	29.8	2.5	-	-	-	-	-	-
21	DDGS Rail/Truck Loadout (EU-35/EU-36)	27.2	27.2	2.3	-	-	-	-	-	-
22	DDGS Rail/Truck Loader(EU-37/EU-38)	0.27	0.27	0.05	-	-	-	-	-	-
23	Twenty-four (24) closed fermenters, collectively identified as EU-22	-	-	-	-	-	57.8	-	_	0.26
24	Two (2) beer wells, identified as EU-23 and EU-24	-	-	-	_	-	12.5	-	_	-
25	Distillation (EU-20 and EU-25 through EU-29)	-	-	-	-	-	0.1	-	-	3.43E-03
26	Four (4) paddle screens, identified as EU-31 and three (3) conveyors, identified as EU-33	-	-	-	-	-	440.0	-	-	2.00
27	One (1) wine room, identified as EU-41	-	-	-	-	-	19.5	-	-	-
28	One (1) tank farm, identified as EU-42	-	-	-	-	-	19.0	-	-	-
29 30	EU-43, which consists of Building 88 One (1) mini-tank farm, identified as EU-45	-	-	-	_	-	4.7 3.6	-	-	-
	``	_	_	_	_	_		_	_	_
31	One (1) barrel and emptying operation, identified as EU-61						12.0			
32	Six (6) warehouses, identified as EU-71 through EU-76	_	_	_	_	-	1867.4	_	_	-
33	One (1) steam boiler, identified as EU-96	1.99	7.96	7.96	0.63	293.4	5.76	88.0	126,479	1.98
34	One (1) steam boiler, identified as EU-97 (worst case fuel)	2.85	3.28	2.21	60.8	28.5	1.12	17.2	31,926	0.39
35	One (1) loading rack, identified as EU-46	-	-	-	-	-	6.69	-		0.05
36	Subtotal Significant Emission Unit	1255	1248	682	80.2	350	3747	569	185,560	112.7
37 38	Fugitive Emissions Emergency Generator-Diesel	0.280	0.160	0.160	1.62	9.60	128.2 0.28	2.20	462	0.90 4.41E-03
39	Emergency Generator-Diesei Emergency Generator-Natural gas	0.200	0.160	0.160	1.62 1.78E-05	0.10	0.20	0.01	4.29	2.38E-03
40	FW Pump-Diesel	0.13	0.13	0.001	0.12	1.82	0.004	0.39	67.8	1.59E-03
41	Subtotal Insignificant Activities	0.41	0.29	0.29	1.74	11.5	0.43	2.60	534	8.38E-03
42	Total	1256	1248	682	82.0	361	3,875	572	186,094	113.6
43										
44										

Potential to Emission Units Prility Pril		A	В	С	D	E	F	G	Н	1	J
Significant Emission Units PN PN Conseyr) Con	45		L		<u> </u>	<u> </u>	<u>'</u>		11	1	J
			,	,	, ` , , , , , , , , , , , , , , , , , ,	SO2	NOx	VOC	CO	GHG	Total HAPs
Project-Affected emission sources		Giginiount Emission Onto			1	1		1		1	
## Proposed direct-fied DDG dryer (Proposed EU-39)	-	Project-affected emission sources	(10110/31)	((01101)11)	(toriory)	(10110/11)	((0110/31)	((0110/31)	((0110/31)	(tonoryr)	(torioryi)
DOG Cooler and Transport System (EU-32)		-		T		40.0					
State Total Content Storage and Loadout (Proposed EU-40) - - - - - 0.05 - 0.00022	49	Proposed direct-fired DDG dryer (Proposed EU-39)	8.38	8.38	8.38	18.8	27.9	8.38	46.4	27,155	1.18
Steam Tube Dryers (EU-32) Serving as Back-up 29,0 29,0 29,0	50	DDG Cooler and Transport System (EU-32)	7.91	5.01	2.01	-	-	9.16	-	-	1.28
Steam Tube Drywrs (EU-32) Serving as Back-up 29.0 29.0 - - 660.5 - - 67.4	E 4	Wet Cake Production, Storage, and Loadout (Proposed EU-40)	-	_	_	_	-	0.05	_	-	0.0022
Section		Steam Tuhe Dryore (ELL 32) Serving as Back up	20.0	20.0	20.0			960.5			67.4
One (1) pneumatic conveyor, identified as EU-11 1.89 1.89 0.32			29.0	29.0	29.0			000.5			07.4
Second (1) corn receiving and storage system, identified as EU-12 (Stack S-111) 2.25 2.25 0.38			1.90	1 90	0.22			1			
2.5 2.5	54	One (1) phedinatic conveyor, identified as EO-11	1.09	1.09	0.32	-	-	-	-	-	-
Seven (7) storage bins, collectively identified as EU-13	55	One (1) corn receiving and storage system, identified as EU-12 (Stack S-111)	2.25	2.25	0.38	-	-	_	-	-	-
Six (6) hammermills, collectively identified as EU-14	56	One (1) grain transport system, identified as EU-12 (Stack S-112)	0.20	0.20	0.03	-	-	-	-	-	-
EU-21, which consists of fourteen (14) open fermenters	57	Seven (7) storage bins, collectively identified as EU-13	0.20	0.20	0.03	-	-	-	-	-	-
10 DDGS Storage (EU-34) 0.30 0.30 0.05 - - - - - -	58	Six (6) hammermills, collectively identified as EU-14	0.90	0.90	0.15	-	-	-	-	-	-
DDGS Rail/Truck Loadout (EU-35/EU-36)	59	EU-21, which consists of fourteen (14) open fermenters	-	-	_	-	-	7.8	-	-	0.04
DDGS Rail/Truck Loader(EU-37/EU-38) 0.27 0.27 0.05 - - - - - - - - -	60	DDGS Storage (EU-34)	0.30	0.30	0.05	-	-	-	-	-	-
Twenty-four (24) closed fermenters, collectively identified as EU-22	61	DDGS Rail/Truck Loadout (EU-35/EU-36)	0.27	0.27	0.05	-	-	-	-	-	-
Two (2) beer wells, identified as EU-23 and EU-24	62	DDGS Rail/Truck Loader(EU-37/EU-38)	0.27	0.27	0.05	-	-	-	-	-	-
Four (4) paddle screens, identified as EU-31 and three (3) conveyors, identified as EU-41	63	Twenty-four (24) closed fermenters, collectively identified as EU-22	_	-	_	-	-	57.8	-	_	0.26
Four (4) paddle screens, identified as EU-31 and three (3) conveyors, identified as EU-41	64	Two (2) beer wells, identified as EU-23 and EU-24	_	_	_	_	_	12.5		_	
Four (4) paddle screens, identified as EU-31 and three (3) conveyors, identified as EU-32		· · · · · · · · · · · · · · · · · · ·	-	-	-	-	-		_	_	3.43E-03
67 One (1) wine room, identified as EU-41 - - - - - 19.5 - - - 68 One (1) tank farm, identified as EU-42 -		Four (4) paddle screens, identified as EU-31 and three (3) conveyors, identified as	_	_	_	_	_		_	-	
One (1) tank farm, identified as EU-42			_	 	_	_	_		_	_	
EU-43, which consists of Building 88			-	_	-	-	-	 	-	-	_
70 One (1) mini-tank farm, identified as EU-45 - <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>_</td> <td>-</td> <td> </td> <td>-</td> <td>-</td> <td>_</td>			-	-	-	_	-	 	-	-	_
72 Six (6) warehouses, identified as EU-71 through EU-76 -			-	-	-	-	-	 	-	-	-
73 One (1) steam boiler, identified as EU-96 1.99 7.96 7.96 0.63 293.4 5.76 88.0 126,479 1.98 74 One (1) steam boiler, identified as EU-97 (worst case fuel) 2.85 3.28 2.21 60.8 28.53 1.12 17.2 31,926 0.39 75 One (1) loading rack, identified as EU-46 - - - - - 6.69 - 0.05 76 Subtotal Significant Emission Unit 56 60 51 80 350 3,336 152 185,560 74.55 77 Fugitive Emissions - - - - - - - - 0.90 78 Emergency Generator-Diesel 0.28 0.16 0.16 1.62 9.60 0.28 2.20 462 4.41E-03 79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.004 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.13 0.12 1.82 0.15	71	One (1) barrel and emptying operation, identified as EU-61	-	-	-	-	-	12.0	-	-	-
73 One (1) steam boiler, identified as EU-96 1.99 7.96 7.96 0.63 293.4 5.76 88.0 126,479 1.98 74 One (1) steam boiler, identified as EU-97 (worst case fuel) 2.85 3.28 2.21 60.8 28.53 1.12 17.2 31,926 0.39 75 One (1) loading rack, identified as EU-46 - - - - - 6.69 - 0.05 76 Subtotal Significant Emission Unit 56 60 51 80 350 3,336 152 185,560 74.55 77 Fugitive Emissions - - - - - - - - 0.90 78 Emergency Generator-Diesel 0.28 0.16 0.16 1.62 9.60 0.28 2.20 462 4.41E-03 79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.004 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.13 0.12 1.82 0.15	70	Six (6) warehouses identified as ELL 74 through ELL 76						1967			
74 One (1) steam boiler, identified as EU-97 (worst case fuel) 2.85 3.28 2.21 60.8 28.53 1.12 17.2 31,926 0.39 75 One (1) loading rack, identified as EU-46 - - - - - - 6.69 - 0.05 76 Subtotal Significant Emission Unit 56 60 51 80 350 3,336 152 185,560 74.55 77 Fugitive Emissions - - - - - - 128.2 - 0.90 78 Emergency Generator-Diesel 0.28 0.16 0.16 1.62 9.60 0.28 2.20 462 4.41E-03 79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.004 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.13 0.12 1.82 0.15 0.39 67.8 1.59E-03 81 <			1.99	7.96	7.96	0.63	293.4	 	88.0	126,479	1.98
75 One (1) loading rack, identified as EU-46 - - - - - - 6.69 - 0.05 76 Subtotal Significant Emission Unit 56 60 51 80 350 3,336 152 185,560 74.55 77 Fugitive Emissions - - - - - - - - 128.2 - 0.90 78 Emergency Generator-Diesel 0.28 0.16 0.16 1.62 9.60 0.28 2.20 462 4.41E-03 79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.04 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.13 0.12 1.82 0.15 0.39 67.8 1.59E-03 81 Subtotal Insignificant Activities 0.41 0.29 0.29 1.74 11.52 0.43 2.60 534 8.38E-03 82 <td></td>											
76 Subtotal Significant Emission Unit 56 60 51 80 350 3,336 152 185,560 74.55 77 Fugitive Emissions - - - - - - - - 128.2 - 0.90 78 Emergency Generator-Diesel 0.28 0.16 0.16 1.62 9.60 0.28 2.20 462 4.41E-03 79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.04 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.12 1.82 0.15 0.39 67.8 1.59E-03 81 Subtotal Insignificant Activities 0.41 0.29 0.29 1.74 11.52 0.43 2.60 534 8.38E-03 82 Total 56.9 60.3 51.0 82.0 361 3,465 154 186,094 75.46				<u> </u>		-	-	<u> </u>		,	
77 Fugitive Emissions - - - - - - 128.2 - 0.90 78 Emergency Generator-Diesel 0.28 0.16 0.16 1.62 9.60 0.28 2.20 462 4.41E-03 79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.04 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.12 1.82 0.15 0.39 67.8 1.59E-03 81 Subtotal Insignificant Activities 0.41 0.29 0.29 1.74 11.52 0.43 2.60 534 8.38E-03 82 Total 56.9 60.3 51.0 82.0 361 3,465 154 186,094 75.46			56	60	51	80	350		152	185,560	
78 Emergency Generator-Diesel 0.28 0.16 0.16 1.62 9.60 0.28 2.20 462 4.41E-03 79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.004 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.12 1.82 0.15 0.39 67.8 1.59E-03 81 Subtotal Insignificant Activities 0.41 0.29 0.29 1.74 11.52 0.43 2.60 534 8.38E-03 82 Total 56.9 60.3 51.0 82.0 361 3,465 154 186,094 75.46			-	-	-	-	-				
79 Emergency Generator-Natural gas 0.001 0.001 0.001 0.0002 0.096 0.004 0.012 4.29 2.38E-03 80 FW Pump-Diesel 0.13 0.13 0.13 0.12 1.82 0.15 0.39 67.8 1.59E-03 81 Subtotal Insignificant Activities 0.41 0.29 0.29 1.74 11.52 0.43 2.60 534 8.38E-03 82 Total 56.9 60.3 51.0 82.0 361 3,465 154 186,094 75.46			0.28	0.16	0.16	1.62	9.60		2.20	462	
80 FW Pump-Diesel 0.13 0.13 0.13 0.12 1.82 0.15 0.39 67.8 1.59E-03 81 Subtotal Insignificant Activities 0.41 0.29 0.29 1.74 11.52 0.43 2.60 534 8.38E-03 82 Total 56.9 60.3 51.0 82.0 361 3,465 154 186,094 75.46				ļ	<u> </u>			 	ļ		
82 Total 56.9 60.3 51.0 82.0 361 3,465 154 186,094 75.46								 	<u> </u>		
							ļ	 			
	82	Total	56.9	60.3	51.0	82.0	361	3,465	154	186,094	75.46
	h			•	•	•	•	*	•	•	

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84	A	В	С	D	E	F	G	H	1	J
85	Potential to Emit After Is	suance of	f Permit (Limited P	TE) (ton/v	/r)				
86	Significant Emission Units	PM	PM10	PM2.5	SO2	NOx	voc	СО	GHG	Total HAPs
87	· ·	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
88	Project-affected emission sources									
89	Proposed direct-fired DDG dryer (Proposed EU-39)	8.38	8.38	8.38	18.8	27.9	8.38	46.4	27,155	1.18
90	DDG Cooler and Transport System (EU-32)	7.91	5.01	2.01	-	-	9.16	-	-	1.28
91	Wet Cake Production, Storage, and Loadout (Proposed EU-40)	-	-	-	-	-	0.05	-	-	0.0022
92	Steam Tube Dryers (EU-32) Serving as Back-up	19.8	19.8	19.8	-	-	587.9	-	-	46.0
93	Emission Units not affected (no change from prior permit representations)		I					L		
94	One (1) pneumatic conveyor, identified as EU-11	189.2	189.2	16.1	-	-	-	_	-	-
95	One (1) corn receiving and storage system, identified as EU-12 (Stack S-111)	5.26	5.26	5.26	-	-	-	-	-	-
96	One (1) grain transport system, identified as EU-12 (Stack S-112)	0.96	0.96	0.96	-	-	-	-	-	-
97	Seven (7) storage bins, collectively identified as EU-13	0.20	0.20	0.03	-	-	-	-	-	-
98	Six (6) hammermills, collectively identified as EU-14	90.1	90.1	7.66	-	-	-	-	-	-
99	EU-21, which consists of fourteen (14) open fermenters	_	_	_	_	_	7.8	_	_	0.04
100	DDGS Storage (EU-34)	0.60	0.60	0.60	_	_	7.0	_	_	
101	DDGS Rail/Truck Loadout (EU-35/EU-36)	1.27	1.27	1.27	-	_	-	_	_	_
102	DDGS Rail/Truck Loader(EU-37/EU-38)	5.48	5.48	5.48	-	-	-	-	-	-
103	Twenty-four (24) closed fermenters, collectively identified as EU-22	-	_	-	-	-	57.8	-	-	0.26
104	Two (2) beer wells, identified as EU-23 and EU-24	-	-	-	-	-	12.5	_	-	-
105	Distillation (EU-20 and EU-25 through EU-29)	-	-	-	-	-	0.1	-	-	0.00
106	Four (4) paddle screens, identified as EU-31 and three (3) conveyors, identified as EU-33	-	_	-	-	-	440.0	-	_	2.00
107	One (1) wine room, identified as EU-41	-	-	-	-	-	19.5	-	-	-
108	One (1) tank farm, identified as EU-42	-	-	-	-	-	19.0	-	-	-
109	EU-43, which consists of Building 88	-	-	-	-	-	4.69	-	-	-
110	One (1) mini-tank farm, identified as EU-45	-	_	-	-	-	3.59		-	-
111	One (1) barrel and emptying operation, identified as EU-61	-	-	-	-	-	12.0	-	-	-
112	Six (6) warehouses, identified as EU-71 through EU-76	-	_	-		-	1,867	-	-	-
113	One (1) steam boiler, identified as EU-96	1.99	7.96	7.96	0.63	293.4	5.76	88.0	126,479	1.98
114	One (1) steam boiler, identified as EU-97 (worst case fuel)	1.98	2.65	1.96	39.4	25.4	0.56	10.42	31,926	0.39
115	One (1) loading rack, identified as EU-46	-	-	-	-	-	6.69	-	-	0.05
116	Subtotal Significant Emission Unit	333	337	77.5	58.9	347	3,063	145	185,560	53.21
117	Fugitive Emissions	-	-	-	-	-	128.2	-	-	0.90
118	Emergency Generator-Diesel	0.28	0.16	0.16	1.62	9.60	0.28	2.20	462	4.41E-03
119	Emergency Generator-Natural gas	0.001	0.001	0.001	0.000	0.096	0.004	0.012	4.29	2.38E-03
120	FW Pump-Diesel	0.13	0.13	0.13	0.12	1.82	0.15	0.39	67.8	1.59E-03
121	Subtotal Insignificant Activities	0.41	0.29	0.29	1.74	11.52	0.43	2.60	534	8.38E-03
122	Total	334	337	77.8	60.6	358	3,192	147	186,094	54.11

	A	В	C	D	E	F
1	Table 2					
2	PSD/NNSR Applicability Analysis					
	Proposed DDG Dryer Project					
	MGPI of Indiana, LLC					
5						
6						
		Project Related Emission Increase	PSD/NNSR Significance	Netting Analysis Required?	Net Emissions	
	Pollutant		Threshold	1		Major Modification? (Yes/ No)
7		(tpy)	(tpy)	(Yes/No)	Increase/Decrease (tpy)	
8	PM	16.29	25	No	N/A	No
9	PM10	13.38	15	No	N/A	No
10	PM2.5	10.39	10	Yes	9.19	No
11	SO2	18.84	40	No	N/A	No
12	CO	46.43	100	No	N/A	No
13	NOx	27.86	40	No	N/A	No
14	VOC	17.58	40	No	N/A	No
15						
15 16 17	Notes:					
17		See Appendix D for constituent-specific tables presenting PSD/NNSR applicability analysis.				

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No.	Facility*	Permit ID	City, State, Zip	Subject to 326 IAC 8-5-6	Method of Compliance	VOC Control Efficiency Required	Year of Documented Reference	
1	Valero Renewable Fuels Company, LLC (dba Valero Linden)	107-29252	Linden, IN 47955	Yes	TO/HRSG	98%	2014	
2	POET Biorefining- Cloverdale, LLC	133-34343	Cloverdale, IN 46120	Yes	2 RTOs	98%	2014	
3	Green Plains Bluffton, LLC	179-34356	Bluffton, IN 46714	Yes	2 RTOs	98%	2014	
4	The Andersons Clymers Ethanol, LLC	017-30272	Logansport, IN 46947	Yes	2 RTO/HRSG Systems	98%	2013	
5	POET Biorefining - Portland	075-30802	Portland, IN 47371	Yes	RTO	98%	2012	
6	POET Biorefining- Alexandria, LLC	095-30443	Alexandria, IN 46001	Yes	RTO	98%	2009	Was issued a FESOP revocation in 2012 since they transitioned from FESOP to Title
7	POET Biorefining North Manchester	169-27641	North Manchester, IN 46962	Yes	2 RTOs	98%	2010	
8	Cardinal Ethanol, LLC	135-27068	Union City, IN 47390	Yes	2 TO/HRSG Systems	98%	2008	
9	Indiana Biofuels, Inc.	145-24857	Shelbyville, IN 46176	Yes	1 TO per Dryer	98%	2007	
10	Noble Americas South Bend Ethanol LLC	141-34359	South Bend, IN 46613	Yes	1 RTO per Dryer	98%	2014	
4								
ites:	Noble Afficiates South Bend Ethanol ELO	[141-04009]	Godin Bend, IIV 40010	1 65	T TIXTO per briyer	3070] 2014	

Combustion Source		Table C-1	IN IN IT IN IS	sion Estillates												
Contention State	C	Criteria Pollutants	Anibustion Emis													
Controlled Con	IV					I										
Production Capacity 64 97.000 10 10 10 10 10 10 10		Combu	stion Source		1											
State	T	Direct-fired Dryer Heat I	nput Capacity ^(a)	45	394,200											
Protection Capacity South	+															
Coverd = Title analy Fee Cohase Pressure Political High and Politi		Produc	tion Capacity	ton/hr	ton/vr											
Curtic Eric early For Cervis Emission 50,	T	Onor Comm Biodilor of B	Dradustics(b)													
Control Prince	T			Pollutant												
Pollutaria Not. CD	1	Control Efficiency For Crit	teria Emissions	SO ₂												
Published Publ																
Political Free Political NOx CO SO NOS PM PM PM PM PM PM PM P	1															
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Commission Finance 1	-	Lincontrolled P													<u> </u>	
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Do not include in printed area: Process Weight Rate: #REF! lb/hr feed into dryer #REF! ton/hr E = 4.10 P ^0.67 E = #REF! lb/hr emission limit		(c) Dryer uncontrol (d) Methodology ar NOx and CO: Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PTE Controlled PTE Controlled PTE Controlled PTE Controlled PT Uncontrolled PTE Controlled PTE Controlled PTE Controlled PTE Controlled PTE Uncontrolled PTE Controlled PTE Uncontrolled PTE Unco	Sample Calculate	Water / Evaporation DDG Production DDG Production ne proposed dryer waters and cyclone/the ations: Introlled Emission Factorntrolled Emission Rate at the ation of the ation	n 30,000 n 19,122 ill operate at rmal oxidizer actor (lb/MMB Factor (lb/MMB 106 = (lb/hr) x (1 - te (ton/yr) x (1 - te (ton/yr	0% #REF! capacity co control effice Stu) x Design (Btu) x Design (At 1.2) (At	ton CO yr iciency)] fficiency)] duction Rate oduction Rate oduction Rate	vided by the ma	anufacturer (ICN	И, Inc.).	Assume PM/	PM₁₀ em	nissions are ed	quivalent.	Under the Pa	rt
Do not include in printed area: Process Weight Rate: #REF! lb/hr feed into dryer #REF! ton/hr E = 4.10 P ^0.67 E = #REF! lb/hr emission limit		(c) Dryer uncontrol (d) Methodology ar NOx and CO: Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT 2 lb CO MMBtu 2 lb CO MMBtu 2 lb CO MMBtu Controlled PTE Controlled PTE 106 lb CO hr 464.28 ton CO yr SO2, VOC, PM Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Controlled PTE Controlled PTE Controlled PTE 95.6 lb VOC hr 418.8 ton VOC	Sample Calculate	Water / Evaporation DDG Production DDG Production ne proposed dryer waters and cyclone/the ations: Introlled Emission Factorntrolled Emission Rate at the ation of the ation	n 30,000 n 19,122 ill operate at rmal oxidizer actor (lb/MMB Factor (lb/MM 106 = (lb/hr) x (1 - te (ton/yr) x (1 10.6 46.4 actor (lb/ton D Factor (lb/ton D	0% #REF! capacity co control effice Btu) x Design (Btu) x Design (At 4.3) Control Effication (Control Effication (ton CO yr iciency)] fficiency)] duction Rate oduction Rate oduction Rate	vided by the ma	anufacturer (ICN	И, Inc.).	Assume PM/	PM₁₀ em	nissions are ed	quivalent.	Under the Pa	rt
Do not include in printed area: Process Weight Rate: #REF! lb/hr feed into dryer #REF! ton/hr E = 4.10 P ^0.67 E = #REF! lb/hr emission limit		(c) Dryer uncontrol (d) Methodology ar NOx and CO: Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT 2 lb CO MMBtu 2 lb CO MMBtu 2 lb CO MMBtu Controlled PTE Controlled PTE 106 lb CO hr 464.28 ton CO yr SO2, VOC, PM Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Controlled PTE Controlled PTE Controlled PTE 95.6 lb VOC hr 418.8 ton VOC	Sample Calculate	Water / Evaporation DDG Production DDG Production ne proposed dryer waters and cyclone/the ations: Introlled Emission Factorntrolled Emission Rate at the ation of the ation	n 30,000 n 19,122 ill operate at rmal oxidizer actor (lb/MMB Factor (lb/MM 106 = (lb/hr) x (1 - te (ton/yr) x (1 10.6 46.4 actor (lb/ton D Factor (lb/ton D	0% #REF! capacity co control effice Btu) x Design (Btu) x Design (At 4.3) Control Effication (Control Effication (ton CO yr iciency)] fficiency)] duction Rate oduction Rate oduction Rate	vided by the ma	anufacturer (ICN	И, Inc.).	Assume PM/	PM₁₀ em	nissions are ed	quivalent.	Under the Pa	rt
Do not include in printed area: Process Weight Rate: #REF! lb/hr feed into dryer #REF! ton/hr E = 4.10 P ^0.67 E = #REF! lb/hr emission limit		(c) Dryer uncontrol (d) Methodology ar NOx and CO: Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT 2 lb CO MMBtu 2 lb CO MMBtu 2 lb CO MMBtu Controlled PTE Controlled PTE 106 lb CO hr 464.28 ton CO yr SO2, VOC, PM Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Controlled PTE Controlled PTE Controlled PTE 95.6 lb VOC hr 418.8 ton VOC	Sample Calculate	Water / Evaporation DDG Production DDG Production ne proposed dryer waters and cyclone/the ations: Introlled Emission Factorntrolled Emission Rate at the ation of the ation	n 30,000 n 19,122 ill operate at rmal oxidizer actor (lb/MMB Factor (lb/MM 106 = (lb/hr) x (1 - te (ton/yr) x (1 10.6 46.4 actor (lb/ton D Factor (lb/ton D	0% #REF! capacity co control effice Btu) x Design (Btu) x Design (At 4.3) Control Effication (Control Effication (ton CO yr iciency)] fficiency)] duction Rate oduction Rate oduction Rate	vided by the ma	anufacturer (ICN	И, Inc.).	Assume PM/	PM₁₀ em	nissions are ed	quivalent.	Under the Pa	rt
#REF! ton/hr E = 4.10 P ^0.67 E = #REF! lb/hr emission limit		(c) Dryer uncontrol (d) Methodology ar NOx and CO: Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT 2 lb CO MMBtu 2 lb CO MMBtu 2 lb CO MMBtu Controlled PTE Controlled PTE 106 lb CO hr 464.28 ton CO yr SO2, VOC, PM Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Controlled PTE Controlled PTE Controlled PTE 95.6 lb VOC hr 418.8 ton VOC	Sample Calculate	Water / Evaporation DDG Production DDG Production ne proposed dryer waters and cyclone/the ations: Introlled Emission Factorntrolled Emission Rate at the ation of the ation	n 30,000 n 19,122 ill operate at rmal oxidizer actor (lb/MMB Factor (lb/MM 106 = (lb/hr) x (1 - te (ton/yr) x (1 10.6 46.4 actor (lb/ton D Factor (lb/ton D	0% #REF! capacity co control effice Btu) x Design (Btu) x Design (At 4.3) Control Effication (Control Effication (ton CO yr iciency)] fficiency)] duction Rate oduction Rate oduction Rate	vided by the ma	anufacturer (ICN	И, Inc.).	Assume PM/	PM₁₀ em	nissions are ed	quivalent.	Under the Pa	rt
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E = #REF! Ib/hr emission limit		(c) Dryer uncontrol (d) Methodology ar NOx and CO: Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PTE Controlled PTE Controlled PTE Controlled PTE Controlled PT Uncontrolled PTE Controlled PTE Controlled PTE Controlled PTE Controlled PTE Ontrolled PTE Controlled PTE Ontrolled PT	led emission factors led Sample Calculated led S	Water / Evaporation DDG Production DDG Production ne proposed dryer waters and cyclone/the ations: Introlled Emission Factoritrolled Emission Rate at the ation of the ation	n 30,000 n 19,122 ill operate at rmal oxidizer actor (lb/MMB Factor (lb/MM 106 = (lb/hr) x (1 - te (ton/yr) x (1 10.6 46.4 actor (lb/ton E Factor (lb/ton 95.6 = (lb/hr) x (1 - te (ton/yr) x (1 1.9 8.4	0% #REF! capacity co control effice Btu) x Design (Btu) x Design (At 4.3) Control Effication (Control Effication (ton CO yr iciency)] fficiency)] duction Rate oduction Rate oduction Rate	vided by the ma	anufacturer (ICN	И, Inc.).	Assume PM/	PM₁₀ em	nissions are ed	quivalent.	Under the Pa	rt
		(c) Dryer uncontrol (d) Methodology ar NOx and CO: Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PTE 2 lb CO MMBtu 2 lb CO MMBtu 2 lb CO MMBtu Controlled PTE Controlled PTE Controlled PTE 106 lb CO hr 464.28 ton CO yr SO2, VOC, PM Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PT Uncontrolled PTE Controlled PTE Controlled PTE Controlled PTE 95.6 lb VOC hr 418.8 ton VOC yr Do not include in printed at Process Weight Rate:	led emission factors led Sample Calculated led S	Water / Evaporation DDG Production DDG Production ne proposed dryer waters and cyclone/the ations: Introlled Emission Factoritrolled Emission Rate at the ation of the ation	n 30,000 n 19,122 ill operate at rmal oxidizer actor (lb/MMB Factor (lb/MM 106 = (lb/hr) x (1 - te (ton/yr) x (1 10.6 46.4 actor (lb/ton E Factor (lb/ton 95.6 = (lb/hr) x (1 - te (ton/yr) x (1 1.9 8.4	0% #REF! capacity co control effice Btu) x Design (Btu) x Design (At 4.3) Control Effication (Control Effication (ton CO yr iciency)] fficiency)] duction Rate oduction Rate oduction Rate	vided by the ma	anufacturer (ICN	И, Inc.).	Assume PM/	PM₁₀ em	nissions are ed	quivalent.	Under the Pa	rt

Cell: E16

Comment: Mike Wieczorek:

VOC and CO percent reductions: 11/20/14 e-mail from Munim H.

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A B C	D E	F	G	Н І	J K	L M	N O	P C) R	S	T	U	V
1 Table C-2 2 DDG Dryer Process & Combustion I 3 Hazardous Air Pollutants 4 MGPI of Indiana, LLC	Emission Estimates												
5	Hourly Annual]											
6 Combustion Source 7 Direct-fired Dryer Heat Input Capacity													
8 RTO Heat Input Capacity 9 Total Heat Input Capacity	(a) 8 70,080												
Production Capacity 12]											
Control Efficiency For Criteria Emissions (% Removal) ^(c)	Pollutant Control Efficiency]											
6 Description	HAP 97% Design Rate Heat Content		Fuel Use										
9 Direct-fired Dryer	(MMBTU/hr) (Btu/scf) 45 1,020	(scf/hr) 44,118	(MMscf/year) 386.5										
Thermal Oxidizer Unit	8 1,020 Tot a	7,843 I 51,961	68.7 455.2										
HAP Emissions Pollutai	Acetaldehyde	Formaldehyde		Acrolein	Methanol	(from Natural Gas	Total HAP						
From DDG Drying Characteristics (EU-39) Emission	0.5	0.31 lbs/ton DDGS		0.01 lbs/ton DDGS	0.11	1.81	Emissions ^(e)						
25 Eactors Unit	s lbs/hr tpy	lbs/hr	tpy	lbs/hr tpy	lbs/hr tpy	lbs/hr tpy	lbs/hr tpy						
27 Uncontrolled PTE ^(f) 28 Controlled PTE ^(f)	4.78 20.94 0.14 0.63	2.96 0.09	12.98 0.39		1.05 4.61 0.03 0.14		8.99 39.36 0.27 1.18						
29 Conversion factor : 1 2,000	ton												
2 Notes:		zor provided by the manufacturer (ICM Inc.)											
(b) DDG production rates as st		zer provided by the manufacturer (ICM, Inc.).											
(c) Dryer uncontrolled emission	n factors and thermal oxidizer co	ontrol efficiencies provided by the manufacturer (ICM, Inc.).	Emission factors for sp	ecific HAPs include I	both process o	emissions fron	the DDG						
(c) Dryer uncontrolled emission (d) HAP emission factors from Pollutant Arsenic Compounds		en from AP-42, Chapter 1.4, as listed below.											
8 9 Pollutant	Natural Gas Emission Factor												
0 Arsenic Compounds	(lbs/MMscf) 0.0002												
2 Benzene (71432)	0.0021 0.00012	1											
3 Beryllium Compounds 4 Cadmium Compounds	0.0011												
Benzene (71432) Beryllium Compounds Cadmium Compounds Chromium Compounds Cobalt Compounds Dichlorobenzene (106467)	0.0014 0.000084												
7 Dichlorobenzene (106467) 8 Formaldehyde (50000)		Included in production-based factor											
9 Hexane (110543)	1.8	-											
1 Manganese Compounds	0.0005 0.00038												
Mercury Compounds Naphthalene (91203)	0.00026 0.00061	-											
Nickel Compounds Polycyclic Organic Matter	0.0021	1											
6 Selenium Compounds	0.000024	1											
7 Toluene (108883) 8 Total HAPs	0.0034 1.81												
1 (f) Methodology and Sample C	alculations, HAP from productio	- dehyde, Acrolein, and Methanol from production and natural g on and natural gas combustion: b/ton DDG) x Production Rate (ton/hr)]	gas combustion combin	ed with the sum of H/	AP emissions	from natural ga	as combustion						
	[Uncontrolled Emission Factor	(lb/ton DDG) x Production Rate (ton/yr) / 2,000 lb/ton]	1.05 <u>lb Methanol</u> hr										
0.11 b Methano 8	bl 83,754 ton ton yr 2,000 lb	_ =	4.61	<u>ton Methanol</u> yr									
1 Controlled PTF (ton/yr) = []	ncontrolled Emission Rate (lb/hr) Incontrolled Emission Rate (ton/												
1.05 lb Methand hr 55 de 4.61 ton Methand yr	0 (1 - 0.97) =		0.03 <u>lb Methanol</u> hr										
8	ol (1 - 0.97) =		0.14 <u>ton Methanol</u> yr										
9 Methodology and Sample C 0 Uncontrolled emissions:	alculations, HAP natural gas co	mbustion only:											
1 51,961 scf hr	1.81 lb HAP	=	0.09	<u>lb HAP</u> hr									
455 MMscf 5 yr	1.81 lb HAP			<u>ton HAP</u> yr									
1 51,961 scf 2 hr 3 455 MMscf 5 yr 6 Controlled emissions: 7 0.09 lb HAP 8 hr	(1 - 0.97) =		0.003 <u>lb HAP</u> hr										
9 0.41 ton HAP 11 yr 2 3 4 5 Do not include in printed	(1 - 0.97) =		0.01 <u>ton HAP</u> yr										
		' requires the calculation of "Toxics Impact" in amount per ton	n. The guidance at the b	ottom of the form sta	tes " ** Indica	te whether air	toxics are generat	ed or eliminated	due to the imple	mentation of th	e BACT optic	on. Quantify	the
7	rated (amount/tor =	(HAP emissions before control) - (HAP emissions after cont (VOC emissions before control) - (VOC emissions after control)	trol)				•	_	,		, ,	,	
00 01	=	0.093	026539										

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<u> </u>	n			p	y		1.1	1
1 Table	Ne C-3	C	D	E	F F	G	<u> </u>	I
	G Dryer Process & Combusti	on Emission F	etimates					
	enhouse Gases							
4 MGP	PI of Indiana, LLC							
5								
6							***************************************	
7	Description		Design Rate	Heat Content	Fuel Use	Hours ^(b)	Fuel Use	
8	Description		(MMBTU/hr)	(Btu/scf)	(scf/hr)	(hr/yr)	(MMscf/year)	
9	Thermal Oxidizer Unit ⁽	a)	8	1,020	7,843	8,760	68.7	
0	Direct-fired Dryer ^(a)		45	1,020	44,118	8,760	386.5	
1		Total			· · · · · · · · · · · · · · · · · · ·		455.2	
2					***************************************			
3			GHG Emission Factors	(c)	1			
4		CO ₂	CH₄	N ₂ O	4			
5		(lb/MMscf)	(lb/MMscf)	(lb/MMscf)				
6		119,193	2.2	0.22				
7		<u> </u>			_			
3		Maximun	Hourly Emissions ^(d)	(lb/hr)				
9		CO ₂	CH ₄	N ₂ O	CO ₂ (e)			
	rmal Oxidizer Unit	934.8	0.02	0.002	936			
	ct-fired Dryer	5,258.5	0.10	0.010	5,264			
	al GHG Emissions		20 E		6,200			
3		***************************************						
4		Maximum A	nnual Emissions ^(d) (to	ns/vear)				
5		CO ₂	CH ₄	N ₂ O	CO ₂ (e)			
	rmal Oxidizer Unit	4,095	0.08	0.01	4,099			
				1 0.01	7,000	1		
7 Direc	ct-fired Dryer	23,032	0.43	0.04	23,056			
	ect-fired Dryer al GHG Emissions	23,032			 			
8 Tota		Ť Ť	0.43	0.04	23,056			
8 Tota 9 80	al GHG Emissions	Ť Ť	0.43	0.04	23,056			
8 Tota 9 0 Note:	al GHG Emissions		0.43	0.04	23,056 27,155			
8 Tota 9 0 1 Note: 2 (a	al GHG Emissions es: (a) Design heat inputs of direct	ifired dryer and	0.43 of thermal oxidizer prov	0.04 ided by the manufa	23,056 27,155 acturer (ICM, Inc.).			
8 Tota 9 0 1 Note: 2 (3	al GHG Emissions	ifired dryer and	0.43 of thermal oxidizer prov	0.04 ided by the manufa	23,056 27,155 acturer (ICM, Inc.).			
8 Tota 9 0 1 Note: 2 (3 4	es: (a) Design heat inputs of direct (b) Operating schedule based	t fired dryer and	0.43 of thermal oxidizer prov n 24 hours a day, 7 day	0.04 ided by the manufa s a week, 52 week	23,056 27,155 acturer (ICM, Inc.). s a year.	Iculated by an	onlying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 4 (0	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to	t fired dryer and on unit operatio	0.43 of thermal oxidizer prov n 24 hours a day, 7 day: om Table C-1 and Table	0.04 ided by the manufas a week, 52 week C-2 of 40 CFR 98.	23,056 27,155 acturer (ICM, Inc.). s a year.	Iculated by ap	oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 4 (0 5	es: (a) Design heat inputs of direct (b) Operating schedule based	t fired dryer and on unit operatio	0.43 of thermal oxidizer prov n 24 hours a day, 7 day: om Table C-1 and Table	0.04 ided by the manufas a week, 52 week C-2 of 40 CFR 98.	23,056 27,155 acturer (ICM, Inc.). s a year.	Iculated by ap	oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 4 (6 5	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to	t fired dryer and on unit operation factors taken from 29/13 Federal G	0.43 of thermal oxidizer prov n 24 hours a day, 7 day om Table C-1 and Table WPs, 78FR71950] to its	0.04 ided by the manufas a week, 52 week C-2 of 40 CFR 98. 5 mass emissions.	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca	Iculated by ap	oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4) 5 6 7	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to	t fired dryer and on unit operation factors taken from 129/13 Federal G	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table sWPs, 78FR71950] to its CH4	0.04 ided by the manufates a week, 52 week C-2 of 40 CFR 98. 5 mass emissions. N ₂ O	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca	Iculated by ap	oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4) 5 6 7 8	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to	t fired dryer and on unit operation factors taken from 29/13 Federal G	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table oWPs, 78FR71950] to its CH ₄ 1.00E-03	0.04 ided by the manufas a week, 52 week C-2 of 40 CFR 98. s mass emissions. N ₂ O 1.00E-04	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca		oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (i 3 (i) 4 (i) 5 6 7 8 9	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to	t fired dryer and on unit operation factors taken from 129/13 Federal G	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table sWPs, 78FR71950] to its CH4	0.04 ided by the manufates a week, 52 week C-2 of 40 CFR 98. 5 mass emissions. N ₂ O	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca		oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1) 4 (0) 5 6 7 8 9 0	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to	t fired dryer and on unit operation factors taken from the control of the control	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table oWPs, 78FR71950] to its CH ₄ 1.00E-03	0.04 ided by the manufas a week, 52 week C-2 of 40 CFR 98. s mass emissions. N ₂ O 1.00E-04	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca		oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1) 4 (0) 5 6 7 8 9 0 1 (0)	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to potential of each GHG [11/2]	t fired dryer and on unit operation factors taken from the control of the control	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table oWPs, 78FR71950] to its CH ₄ 1.00E-03	0.04 ided by the manufas a week, 52 week C-2 of 40 CFR 98. s mass emissions. N ₂ O 1.00E-04	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca		oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4 (6 5 6 7 8 9 0 1 (6 2	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to potential of each GHG [11/2]	t fired dryer and on unit operation factors taken from the control of the control	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table (WPs, 78FR71950] to its CH ₄ 1.00E-03 25	0.04 ided by the manufas a week, 52 week C-2 of 40 CFR 98. s mass emissions. N ₂ O 1.00E-04 298	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent		oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1) 5 6 7 8 9 0 1 (0) 2 3	es: (a) Design heat inputs of direct (b) Operating schedule based (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer:	t fired dryer and on unit operation factors taken from the content of the content	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table owers, 78FR71950] to its CH ₄ 1.00E-03 25	0.04 Ided by the manufates a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N ₂ O 1.00E-04 298 Factor (lb/MMscf)	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent		oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4 (6 5 6 7 8 9 0 1 (6 2 3 4	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the content of the content	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table owers, 78FR71950] to its CH ₄ 1.00E-03 25	0.04 Ided by the manufates a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N ₂ O 1.00E-04 298 Factor (lb/MMscf)	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent		oplying the globa	I warming
8 Tota 9 0 1 Note: 2 (3 3 (0 5 66 7 88 9 0 1 1 (0 2 3 4 5 5	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the content of the content	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table owers, 78FR71950] to its CH ₄ 1.00E-03 25	0.04 Ided by the manufates a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N ₂ O 1.00E-04 298 Factor (lb/MMscf)	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent	al		I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4) 5 6 7 8 9 0 1 (2 3 3 4) 5 6 6	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the content of the content	0.43 of thermal oxidizer proven 24 hours a day, 7 days om Table C-1 and Table own Table C-1 and Tab	0.04 Ided by the manufates a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N2O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/M	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb	al 934.85		I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4 (6 5 6 7 8 9 0 1 2 3 4 5 6 7	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the content of the content	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table ower Table C-1	0.04 ided by the manufate a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N2O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/Ml	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb	al 934.85	lb CO ₂	I warming
8 Tota 9 0 1 Note: 2 (3 3 (0) 5 66 7 8 9 0 1 2 (0) 2 3 4 (0) 5 66 7 8 7	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the content of the content	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table ower Table C-1	0.04 ided by the manufate a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N2O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/Ml	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb	934.85	lb CO ₂	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4) 5 6 7 8 9 0 1 (2 3 3 4) 5 6 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the control of the control	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table oWPs, 78FR71950] to its CH ₄ 1.00E-03 25 virate (scf/hr) x Emission ow rate (MMscf/yr) x Emission ow MMscf	0.04 Ided by the manufate a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N2O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/M	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb	934.85 4,095	lb CO ₂	I warming
8 Tota 9 0 1 Note: 2 (3 3 (0 5 6 7 8 9 0	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the content of the content	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table owers, 78FR71950] to its CH ₄ 1.00E-03 25 or rate (scf/hr) x Emission owerste (MMscf/yr) x Emission MMscf 119,193 lb MMscf 119,193 lb	0.04 ided by the manufates a week, 52 week C-2 of 40 CFR 98. is mass emissions. N2O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/M MMscf 10^6 scf ton	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb	934.85 4,095	<u>lb CO₂</u> hr <u>ton CO₂</u>	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4 5 6 7 8 9 0 1 1 (1 5 6 7 8 9 0 1 1 (1 5 6 7 8 9 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 1 1 (1	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission to potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (I	t fired dryer and on unit operation factors taken from the control of the control of tactors taken from the	0.43 of thermal oxidizer proving 24 hours a day, 7 days om Table C-1 and Table oWPs, 78FR71950] to its CH ₄ 1.00E-03 25 virate (scf/hr) x Emission ow rate (MMscf/yr) x Emission MMscf 119,193 lb MMscf 119,193 lb MMscf	0.04 Ided by the manufactor as a week, 52 week C-2 of 40 CFR 98. Is mass emissions. N2O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/M MMscf 10^6 scf ton 2,000 lb	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb =	934.85 4,095	Ib CO ₂ hr ton CO ₂ yr	I warming
8 Tota 9 0 Note: 2 (3 (1 (6)) 5 6 7 8 9 0 1 (6) 2 3 4 (7) 5 6 7 8 9 0 1 2 (7)	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission of potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (to Maximum CO ₂ emissions (to	t fired dryer and on unit operation factors taken from the content of the content	of thermal oxidizer proven 24 hours a day, 7 days om Table C-1 and Table own 78FR71950] to its CH ₄ 1.00E-03 25 orate (scf/hr) x Emission ow rate (MMscf/yr) x Emi 119,193 lb MMscf 119,193 lb MMscf ch/hr) + (CH ₄ emissions	0.04 ided by the manufate a week, 52 week C-2 of 40 CFR 98. mass emissions. N ₂ O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/Ml MMscf 10^6 scf ton 2,000 lb (lb/hr) X CH ₄ GWP	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb = =	934.85 4,095 ar) X N ₂ O GWI	lb CO₂ hr ton CO₂ yr	I warming
8 Tota 9 0 1 Note: 2 (3 3 (1 4 5 6 7 8 9 0 1 1 (1 5 6 7 8 9 0 1 1 (1 5 6 7 8 9 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 0 1 1 (1 5 6 7 8 8 9 1 1 (1	es: (a) Design heat inputs of direct (b) Operating schedule based of (c) Greenhouse gas emission of potential of each GHG [11/2] (d) Methodology and Sample of Thermal Oxidizer: Maximum CO ₂ emissions (the schedule based of the schedule bas	t fired dryer and on unit operation factors taken from the content of the content	of thermal oxidizer proven 24 hours a day, 7 days om Table C-1 and Table own 78FR71950] to its CH ₄ 1.00E-03 25 orate (scf/hr) x Emission ow rate (MMscf/yr) x Emi 119,193 lb MMscf 119,193 lb MMscf ch/hr) + (CH ₄ emissions	0.04 ided by the manufate a week, 52 week C-2 of 40 CFR 98. mass emissions. N ₂ O 1.00E-04 298 Factor (lb/MMscf) ssion Factor (lb/Ml MMscf 10^6 scf ton 2,000 lb (lb/hr) X CH ₄ GWP	23,056 27,155 acturer (ICM, Inc.). s a year. CO ₂ e emissions are ca Units kg/MMBtu Global Warming Potent x MMscf/10^6 scf) Mscf) x ton/2,000 lb = =	934.85 4,095 ar) X N ₂ O GWI	lb CO₂ hr ton CO₂ yr	I warming

		·			-				·				,			
1	A B Table C-4	C	D	E	F	G	H	l	J	K		M	N	0	P	Q
		l Transport	Systei	m Emission Estimate	es											
3	Particulate	-	-													
5	MGPI of Indiana	, LLC														
6	Uncontrolled Er	missions Es	timate	es												
					Uncontrolled PM	Uncontrolled PM ₁₀	Uncontrolled PM _{2.5}			- (c)	2	ntrolled	ž.	ntrolled	Uncon	
7	Emission Unit	Emission F	oint	Description	Emission Factor	Emission Factor	Emission Factor	Source ^(a)	DDG thro	ughput	8	mission ite ^(d)		ite ^(d)		te ^(d)
8					(lb/ton)	(lb/ton)	(lb/ton)		(ton/hr)	(ton/yr)		(ton/yr)				
9		Screw Con	veyor	Grain Conveying	0.061	0.034	0.0058	AP-42, Table 9.9.1-1 (3/03), Headhouse and Grain Handling			0.58	2.55	0.33	1.42	0.06	0.24
10	EU-32	Hammer	Mill	Hammer Milling ^(b)	0.793	0.484	0.182	AP-42, Table 9.9.1-2 (3/03), Animal Feed Mills, Hammermill	9.56	83,754	7.58	33.20	4.62	20.25	1.74	7.64
11		Drum Co	oler	Grain Conveying	0.061	0.034	0.0058	AP-42, Table 9.9.1-1 (3/03), Headhouse and Grain Handling			0.58	2.55	0.33	1.42	0.06	0.24
12										Totals	8.16	35.76	4.95	21.68	1.80	7.88
13	Controlled Emis	ssions Estir	nates													
H					Controlled PM	Controlled PM ₁₀	Controlled PM _{2.5}				Contr	olled PM		trolled		rolled
	Emission Unit	Emission F	oint	Description	Emission Factor	Emission Factor	Emission Factor	Source ^(a)	DDG thro	ughput ^(c)		ission	ı	mission	1	
15 16				•	(lb/ton)	(lb/ton)	(lb/ton)	000.00	(ton/hr)	(ton/yr)		te ^(d)		te ^(d)	(lb/br)	te ^(d)
10						<u> </u>		AP-42, Table 9.9.1-1 (3/03),	[(toi/iii)	(toll/yr)	Ī					
17		Screw Con	veyor	Grain Conveying	0.061	0.034	0.0058	Headhouse and Grain Handling			0.58	2.55	0.33	1.42	0.06	0.24
18	EU-32	Hammer	Mill	Hammer Milling ^(b)	0.067	0.052	0.036	AP-42, Table 9.9.1-2 (3/03), Animal Feed Mills, Hammermill	9.56	83,754	0.64	2.81	0.49	2.16	0.35	1.53
19		Drum Co	oler	Grain Conveying	0.061	0.034	0.0058	AP-42, Table 9.9.1-1 (3/03), Headhouse and Grain Handling			0.58	2.55	0.33	1.42	0.06	0.24
20	200000000000000000000000000000000000000									Totals	1.81	7.91	1.14	5.01	0.46	2.01
21																
22		Notes:														
			ctors ta	aken from AP-42, Fiftl	n Edition, Volume 1,	Section 9.9.1 (Grain Elev	ators and Processes).									
								lled milling factor is taken from AP	² -42, Table 9	.9.1-1, whic	ch accou	ints for cy	clone co	ontrols in	place on	DDG
24		COC	oling sy	ystem. Uncontrolled f	actor for milling is ca	lculated assuming that the	e cyclone achieves 85% P	M control.								
25		(b) As	recom	mended by AP-42 Ap	-	2.2 for Category 7 - "Gra	in Processing" on Page 1	7, the particle size distribution for F	PM ₁₀ is 61%	of Total PI	VI and fo	r PM _{2.5} is	23% of	Total PI	/l for	
26				PM Size Range	Uncontrolled wt%	Collection Efficiency	Controlled Wt	Controlled wt%								
27				PM _{2.5}	23%	80%	0.046	54%								
28				PM _{2.5} to PM ₁₀	38%	95%	0.019	22%								
29				PM ₁₀ and higher	39%	95%	0.0195	23%								
30			-		1		0.0845		-							
31						Overall control:	91.6%									
32		(a) Thr	ouahn	uts as listed in Table (^ 1											
34				ogy and Sample Calc												
35		. ,		••		actor (lb/ton DDG) x Pro	duction Rate (ton/hr)]									
36		Un				Factor (lb/ton DDG) x Pr	oduction Rate (ton/yr) / 2,	000 lb/ton]								
37				Hammer Milling Emis	sions:											
39				0.05 lb PM-10	9.561 ton	= 0.49 lb PM-10/hr										
40			-	ton DDG	hr											
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43				0 0E lb DM 40	00 75440	40-	- 0.46 to - DM 404									
42			-	0.05 lb PM-10 ton DDG	83,754 ton yr	ton 2,000 lb	= 2.16 ton PM-10/yr									
44				1011 22 0	, ,,	2,000 15										
44 45 46 47																
46																
48																
48 49 50 51																
50																
51 52																
53				Do not include in print	ed area											
54				Process Weight Rate												
55		ton		G into cooler		9.56										
56					E = 4.10 P ^0.67											
54 55 56 57 58 59		lb/h	ır emis	sion limit	E =	18.61										
59					Dryer meets limit?	Yes										

indiai	nd Transport System Emi nic Compounds & Hazardo na, LLC										
				Uncontrolled Emission	ion 0.219	Т	0.016	0.00033	0.010	0.0036	
on	Emission Point	Description		Factors	s ^(a) Ib/ton DDG		lbs/ton DDG	Ibs/ton DDG	lbs/ton DDG	lbs/ton DDG	G
			DDG throughput ^(b)	_	VOC ^(c)		Acetaldehyde ^(c)	Acrolein ^(c)	(c)	Methanol ^(*)	
			(ton/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr) (ton/yr)	(lb/hr) (ton/yr)	(lb/hr) (ton/yr)	j (lb/hr) (ton/y	<u>yr)</u>
	Drum Cooler	Cooling Drum Apparatus									
2 -			9.56	83,754	2.09	9.16	0.16 0.69	0.0031 0.014	0.10 0.43	0.034 0.15	5
	Existing Screw Conveyor	Grain Conveying									
	Existing Hammer Mill and	Hammer Milling									
(b) DD (c) Me Em	G throughputs as provided i thodology and Sample Calci ission rate (lb/hr) = DDG Th	n Table C-1. ulations: roughput (ton/hr) X D	imilar operation permitted in Indiana under Permit #T169-31191-00068 (POET Biorefining - North Manchester). HAP emi DDG Cooling Emission factor (Ib/ton) DDG Cooling Emission factor (Ib/ton) x ton/2,000 lb						, ,	, ,	
			9.561 ton DDG	0.219 lb VOC	=	2 09 11	b VOC				
			hr	ton DDG			nr				
			92.754 by DDO	0.219 lb VOC	1	=	0.46 + 1/00				
			83,754 ton DDG vr	ton DDG	ton 2,000 lb		9.16 <u>ton VOC</u> yr				
	Acetaldehyde Acrolein Formaldehyde Methanol	(d) 0.013 (d) 0.39	7.50% 0.15% 4.65% 1.65%								
	2	ter	From June 2004 testing at POET-Biorefining Jewell (IA)								
Val	ero-Linden 0.02	3 lb VOC/ton	From Vendor data; based on testing of a similar facility and scaled linearly (2.54 scale factor) to site-specific production								
Gre	een Plains Bluffton 0	1 lb VOC/ton									
РО	ET Biorefining - Portland										
		3 lb/hr ?7 ton DDG/hr		23,800 scfm 74.5 ppmv as C	From Feb 2008 stack test at POET-Portland						
		7 lb VOC/ton DDG		12 lb/lb-mol C 2.2 Midwest scaling factor (as C to as EtOH) 7.29 lb/hr as EtOH							
	ET - Alexandria										
PO	5	7 lb VOC/hr ?7 ton DDG/hr		23,800 scfm							
PO	-			58.23 ppmv as C 12 lb/lb-mol C							

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									_			_		T		r		
	A	B	C	D	E	<u> </u>	G	Н	I	J	<u>K</u>	<u> </u>	<u> </u>	N	0	P	Q	R
	Table C-6	"	.															
-	Wet Cake E																	
3 4	MGPI of Inc	ilana, LLC	,															
5																		
6																		
7																		
					Unc	ontrolled	^ ^	083	0.00	204		0002	T	0002	T	0004		
8					1	Emission											Tota	IHAP
9	Emissio	n Unit	Emissio	n Point ^(a)		actors(b)							ĝ enomento de la constanta de		***************************************		Emis	sions
10						Feed ^(c)		C _(q)	Acetalde			lein ^(d)	<u> </u>	ldehyde ⁽	4	anol ^(d)		
11					(ton/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
	Proposed	d EU-40	1	Production,	24.56	12,281	0.20	0.05	0.002	0.0006	0.0005	0.0001	0.005	0.001	0.001	0.0002	0.009	0.0022
			Storage, a	nd Loadout			0.20	0,00	0.002	0.000		0.000.	"""	0.00		0.000	0.000	0.0022
12	***************************************			***************************************														
13	Notes:																	
15		VOC and b	JAD amissis	ns can resu	lt during i	aariada af	druor of	ort un on	d obutdow	n whon i	ho druor	through	out may	ha divart	ad to a v	ot pad a	a that w	at food in
16	` '			t cake taker	· ·		•				•		,			•		et leeu is
17				aximum as t		•								•		-	•	s limited
18				iple Calculat		. aro mak	Jilai bale	piov		datou		J. 7 6 111 G	100d C		at viot	cano pro	3300011	o innicou
19				Dryer Feed		(Wet Cak	e Emiss	ion factor	(lb/ton)									
20				= Dryer Fee						k ton/2,00	00 lb							
21				<u>-</u>					. ,									
22	_	24.56 to	on wet cake	0.0083 II	o VOC	=	0.20	<u>lb VOC</u>										
23			hr	ton wet	cake			hr										
24																		
25	_	12,281 to	on wet cake	-		ton	. =	0.05	ton VOC									
26			yr	ton wet	cake	2,000 lb			yr									

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	A	В	С	D	Е	F	G	Н
1	Table C-7a							
2	Potential to Emit (PTE) From Existing Steam Tube Dryer System							
	Proposed DDG Dryer Project							
	MGPI of Indiana, LLC							
5								
	EU-32 Steam Tube Rotary Dryers, Cooler and Transport System							
7								
8	PM, PM ₁₀ , PM _{2.5} Emissions		T		<u> </u>			
			Dryer Feed	Controlled Emission	Control	led	Uncor	ntrolled
	Constituent		Rate ^(a)	Factor ^(b)	Emissio	ns ^(c)	Emiss	sions ^(d)
9			(ton/yr)	(lb/ton)	(ton/y	r)	(to	n/yr)
10	PM			0.27	29.0		19	3.6
11	PM10		215,154	0.27	29.0	-		3.6
12	PM2.5		1	0.27	29.0		19	3.6
13						ı		
14	Notes:							
	(a)		_	ım tube dryer systei				
		IRI	dated 1/30/2015.	Capacity of existin	g system an	d propo	sed syste	m are
15	4.	equivalent.						
16	(b)			AP-42, Table 9.9.7-	1. The emis	ssion es	stimation	
17	(c)		d Sample Calcula					
18				e (ton/yr) x EF (lb/ton)				
19		PM2.5 emissions	conservatively assu	med to be equal to PN	/I10 emissions			
20			Ī	Ī				
21		215,154 ton	0.27 lb PM	ton	. =	29.0	ton PM	
22		yr	ton	2,000 lb		ļ	yr	
23								
24	(d)			sed on an 85% control	-	controlle	ed emission	S.
25		PM _{2.5} emissions c	onservatively assum	ned to be equal to PM	₁₀ emissions.			
26								
27	NOO Fusionis							
28	VOC Emissions		Water	VOC Content of	VOC from	l		
	Dryer Feed Rate ^(a) (ton/hr)		Content ^(b) (%	Water ^(b) (lb	Dryers			
29	Diyer Feed Kate (toll/lil)		by wt)	VOC/Ib water)	(ton/yr)			
30	215,154		66.66%	0.006	860.5			
31			per successible too of test	CONTRACTOR OF THE PROPERTY OF	Oct Oct 2002020	ı		
	Notes:							
33	(a)	Feed (wet cake)	into existing stea	ım tube dryer systei	m is taken fr	om the	material b	alance
34	(b)	Water content (% wt) and VOC co	ontent of water (lb \	/OC/lb wate	r)		
35	(c)	Methodology an	d Sample Calcula	tions:				
36			-	r) x Water Content of	Feed (% by w	/t) x (lb V	OC/lb wate	∍r)
37		, , ,						
38		215,154 ton	66.66 % wt	0.006 lb VOC	=	860.5	ton VOC	
39		yr	ton	Ib water			yr	
40								
41								
42	HAP Emissions							

	A	В	С	D	Е	F	G	Н
43	НАР		HAP% ^(a) (by wt of VOC)	HAP from Dryers (ton/yr)				
44	Acetaldehyde		6.18%	53.2				
45	Acrolein		0.37%	3.2				
46	Methanol		1.24%	10.7				
47	Formaldehyde		0.04%	0.3				
48	Total			67.4				
49		_			•			
50	Notes:							
51	(a)	HAP compositio	n taken from May :	22, 2014 ATSD, Ap	pendix A, F	Page 8 d	of 23, for p	ermit T029

	۸	Б		<u> </u>		F ^	
1	A A Table C-7b	В	С	D	E	F G	Н
	Emissions From Existing Steam Tube Dryer System - as Backup						
	Proposed DDG Dryer Project						
	MGPI of Indiana, LLC						
5							
6	EU-32 Steam Tube Rotary Dryers, Cooler and Transport System						
7							
8	PM, PM ₁₀ , PM _{2.5} Emissions						
			Dryer Feed	Controlled	Controlle	ed Un	controlled
	Constituent		Rate ^(a)	Emission	Emission		nissions ^(d)
١			(ton/yr)	Factor ^(b)	(ton/yr)		(ton/yr)
9	- DM		(30, 7)	(lb/ton)			
10	PM		4.47.000	0.27	19.8		132.3
11	PM10		147,000	0.27	19.8		132.3
12	PM2.5			0.27	19.8		132.3
13	N						
14	Notes:	Food Kust L-N	into ovietiet-	no fullo almasa acces	m in h!		a baals t-
	(a)		_	m tube dryer syster GPI proposes to lin		•	
				as back-up to the			
15	(b)	•	•		•		
16	(b)			AP-42, Table 9.9.7-	1. THE EITHS	olon esuman	UII
17	(c)		d Sample Calcula				
18				(ton/yr) x EF (lb/ton)			
19		PM2.5 emissions of	conservatively assur	ned to be equal to PN	/110 emissions.		
20		4.7.000				40.04	
21		147,000 ton	0.27 lb PM	ton	- =	19.8 ton PN	<u>/I</u>
22		yr	ton	2,000 lb		yr	
23	/ IV			050/			
24	(d)			ed on an 85% control	-	ontrolled emis	sions.
25		PM _{2.5} emissions co	onservatively assum	ed to be equal to PM	₁₀ emissions.		
26							
27	VOO Fusionisma						
28	VOC Emissions		Water	VOC Content of	VOC 6		
	Dryer Feed Rate (ton/hr)		Content ^(b) (%	Water ^(b) (Ib	Dryers		
29	Diyer reed Nate (toll/ill)		by wt)	VOC/Ib water)	(ton/yr)		
30	147,000		66.66%	0.006	587.9		
31	,000			1 2.223			
	Notes:						
33	(a)	Feed (wet cake)	into existina stea	m tube dryer syste	m is based on	1	
34	(b)	, ,	•	ontent of water (lb \			
35	(c)	-	Sample Calcula				
36	(4)		•	r) x Water Content of	Feed (% by wt)	x (lb VOC/lb	water)
37		voo (toniyi) – Diy	or recording (tolly)	, A Trace Content of	, cca (70 by Wt)	, A (15 V OO/15	viator,
38		147,000 ton	66.66 % wt	0.006 lb VOC	= !	587.9 ton VC	oc l
39		yr	ton	lb water	•	yr	
40			-	-			
41							
42	HAP Emissions						

	A	В	С	D	E	F	G	Н
43	НАР		HAP% ^(a) (by wt of VOC)	HAP from Dryers (ton/yr)				
44	Acetaldehyde		6.18%	36.3				
45			0.37%	2.2				
46	Methanol		1.24%	7.3				
47	Formaldehyde		0.04%	0.2				
48	Total			46.0				
49								
-	Notes:							
51	(a)	HAP compositio	n taken from May 2	22, 2014 ATSD, A	ppendix A, I	Page 8 d	of 23, for p	ermit T029-

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А	В	С	D	E			
1 Table D-1							
2 Project-Related PM Emission Changes							
	DDG Dryer Project						
MGPI of I	ndiana, LLC						
5							
<u> </u>							
7	Source	Baseline or Past Actual Emissions (tpy) ^(a)	Post-Project Emissions (tpy) ^(b)	Project-Related Emissions Increase/Decrease (tpy) ^(c)			
(Proposed	,	0	8.38	8.38			
(portion of	er anu Transport System ⊏LL32\	0	7.91	7.91			
	eam Tube Dryers	21.45	19.85	-1.61			
		Projec	t-Related Increases:	16.29			
2			nificance Threshold:	25			
3			Emissions Increase?	NO			

15 Notes:

- (a) Past actual emissions for the proposed direct-fired DDG dryer are zero since the unit will be newly constructed. The existing DDG cooler and transport system (portion of EU-32) will continue to be used downstream of the direct-fired DDG dryer. However, emissions from these operations have not historically been separately quantified from existing steam tube dryer emissions. Therefore the cooler and transport baseline emissions are conservatively set to zero as well.
- (b) See Table C-1 for post-project emission rates from the proposed direct-fired DDG Dryer. See Table C-4 for post-project emission rates from the Cooler and
- (c) Project-Related Emissions Increase/Decrease = Future Projected Actual or Permitted Emissions Past Actual Emissions
- (d) The existing steam tube DDG dryers (portion of EU-32) will be converted to use as a back-up system for the proposed direct-fired DDG dryer, but will not be

17

18

24 Do not include with application

25 Contemporaneous Emission Changes - Netting Analysis

26	Project Name/Description	Actual Emissions Before the Change (tpy)	Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)
27	Proposed Project Increases	0	16.29	16.29	16.29
28	Proposed Project Decreases ^(e)	21.45	19.85	-1.61	-1.61
	Creditable Contemporaneous				
29	Increases/Decreases ^(f,g)				
	Permit 029-32386-00005	_		0.10	0.10
30 L	(12/17/12)			0.10	0.10
31				Total Contemporaneous Net Emissions Change	14.78
32				Significance Threshold:	25
33				Significant Net Emissions Increase?	NO

(e) Project related emission decreases are associated with the conversion of the existing steam tube Dryers (included with existing EU-32 to "backup status").

(f) The Creditable Contemporaneous Increases/Decreases were determined based on historical projects conducted at MGP of Indiana's Lawrenceburg, IN over 0000017.Xsx

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	Λ Ι Β		<u> </u>		F			
	A B B Table D-2	C	D	Е				
	Project-Related PM ₁₀ Emission Ch	anges						
	Proposed DDG Dryer Project	900						
	MGPI of Indiana, LLC							
5	<u> </u>							
6								
7	Source	Baseline or Past Actual Emissions (tpy) ^(a)	Post-Project Emissions (tpy) ^(b)	Project-Related Emissions Increase/Decrease (tpy) ^(c)				
8	Proposed direct-fired DDG dryer (Proposed EU-39)	0	8.38	8.38				
9	(portion of ELL-32)	0	5.01	5.01				
10	Existing Steam Tube Dryers	21.45	19.85	-1.61				
11		Proje	ect-Related Increases:	13.38				
12			ignificance Threshold:	15				
13	!	Significan	t Emissions Increase?	NO				
14	Notes:							
17 18 19 20	(b) See Table C-1 for post-project emission rates from the proposed direct-fired DDG Dryer. See Table C-4 for post-project emission rates from the Cooler and (c) Project-Related Emissions Increase/Decrease = Future Projected Actual or Permitted Emissions - Past Actual Emissions (d) The existing steam tube DDG dryers (portion of EU-32) will be converted to use as a back-up system for the proposed direct-fired DDG dryer, but will not be DDG not include with application							
21 22	Do not include with application	n Changes - Netting Ana		as a back-up system for the proposed direct-fired DDG dry	ver, but will not be			
21 22			lysis					
21 22	<u>Do not include with application</u> Contemporaneous Emissio	Actual Emissions	lysis Potential Emissions	Change	Creditable Increase			
21 22 23	Do not include with application Contemporaneous Emissio Project Name/Description	Actual Emissions Before the Change	lysis Potential Emissions After the Change	Change (Increase or Decrease)	Creditable Increase or Decrease			
21 22 23 24	Do not include with application Contemporaneous Emissio Project Name/Description	Actual Emissions Before the Change (tpy)	lysis Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)			
21 22 23 24 25	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases	Actual Emissions Before the Change (tpy)	lysis Potential Emissions After the Change (tpy) 13.38	Change (Increase or Decrease) (tpy) 13.38	Creditable Increase or Decrease (tpy) 13.38			
21 22 23 24	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases(e)	Actual Emissions Before the Change (tpy) 0 21.45	lysis Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)			
21 22 23 24 25 26	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases ^(e) Creditable Contemporaneous	Actual Emissions Before the Change (tpy) 0 21.45	lysis Potential Emissions After the Change (tpy) 13.38	Change (Increase or Decrease) (tpy) 13.38	Creditable Increase or Decrease (tpy) 13.38			
21 22 23 24 25	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases ^(e) Creditable Contemporaneous Increases/Decreases	Actual Emissions Before the Change (tpy) 0 21.45	lysis Potential Emissions After the Change (tpy) 13.38	Change (Increase or Decrease) (tpy) 13.38	Creditable Increase or Decrease (tpy) 13.38			
21 22 23 24 25 26 27	Project Name/Description Proposed Project Increases Proposed Project Decreases Creditable Contemporaneous Increases/Decreases (f.g) Permit 029-32386-00	Actual Emissions Before the Change (tpy) 0 21.45	lysis Potential Emissions After the Change (tpy) 13.38	Change (Increase or Decrease) (tpy) 13.38	Creditable Increase or Decrease (tpy) 13.38			
21 22 23 24 25 26 27 28	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases (e) Creditable Contemporaneous Increases/Decreases (f,g) Permit 029-32386-00 (12/17)	Actual Emissions Before the Change (tpy) 0 21.45	lysis Potential Emissions After the Change (tpy) 13.38	Change (Increase or Decrease) (tpy) 13.38 -1.61	Creditable Increase or Decrease (tpy) 13.38 -1.61			
21 22 23 24 25 26 27 28 29 30	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases ^(e) Creditable Contemporaneous Increases/Decreases ^(f,g) Permit 029-32386-00 (12/17)	Actual Emissions Before the Change (tpy) 0 21.45	lysis Potential Emissions After the Change (tpy) 13.38	Change (Increase or Decrease) (tpy) 13.38 -1.61	Creditable Increase or Decrease (tpy) 13.38 -1.61			
21 22 23 24 25 26 27 28 29 30 31	Project Name/Description Proposed Project Increases Proposed Project Decreases (F.g.) Permit 029-32386-00 (12/17)	Actual Emissions Before the Change (tpy) 0 21.45	lysis Potential Emissions After the Change (tpy) 13.38	Change (Increase or Decrease) (tpy) 13.38 -1.61 0.41 Total Contemporaneous Net Emissions Change	Creditable Increase or Decrease (tpy) 13.38 -1.61 0.41 12.19			
21 22 23 24 25 26 27 28 29 30 31 32	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases (e.g.) Creditable Contemporaneous Increases/Decreases (f.g.) Permit 029-32386-00 (12/17)	Actual Emissions Before the Change (tpy) 0 21.45	Potential Emissions After the Change (tpy) 13.38 19.85	Change (Increase or Decrease) (tpy) 13.38 -1.61 0.41 Total Contemporaneous Net Emissions Change Significance Threshold: Significant Net Emissions Increase?	Creditable Increase or Decrease (tpy) 13.38 -1.61 0.41 12.19 15 NO			
21 22 23 24 25 26 27 28 29 30 31 32 33	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases(e) Creditable Contemporaneous Increases/Decreases (f,g) Permit 029-32386-00 (12/17)	Actual Emissions Before the Change (tpy) 0 21.45 0005 7/12)	Potential Emissions After the Change (tpy) 13.38 19.85	Change (Increase or Decrease) (tpy) 13.38 -1.61 0.41 Total Contemporaneous Net Emissions Change Significance Threshold: Significant Net Emissions Increase?	Creditable Increase or Decrease (tpy) 13.38 -1.61 0.41 12.19 15 NO backup status"). See			
21 22 23 24 25 26 27 28 29 30 31 32	Do not include with application Contemporaneous Emissio Project Name/Description Proposed Project Increases Proposed Project Decreases(e) Creditable Contemporaneous Increases/Decreases (f,g) Permit 029-32386-00 (12/17) (e) Project related emission (f) The Creditable Contem	Actual Emissions Before the Change (tpy) 0 21.45 0005 7/12)	Potential Emissions After the Change (tpy) 13.38 19.85 the conversion of the exist were determined based	Change (Increase or Decrease) (tpy) 13.38 -1.61 0.41 Total Contemporaneous Net Emissions Change Significance Threshold: Significant Net Emissions Increase?	Creditable Increase or Decrease (tpy) 13.38 -1.61 0.41 12.19 15 NO backup status"). See			

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	<u></u>		·····			~
	A B		С	D	E	<u>F</u>
1	Table D-3	niau Obaua				
2	Project-Related PM _{2.5} Emiss	_	jes			
3	Proposed DDG Dryer Project MGPI of Indiana, LLC	Ct				
	INGFI Of Indiana, LLC					
5						
6				I		1
7	Source		Baseline or Past Actual Emissions (tpy) ^(a)	Post-Project Emissions (tpy) ^(b)	Project-Related Emissions Increase/Decrease (tpy) ^(c)	
7				***		
8	Proposed direct-fired DDG dry (Proposed EU-39)		0	8.38	8.38	
9	(portion of ELL-32)	ysterri	0	2.01	2.01	50000000000000000000000000000000000000
10	Existing Steam Tube Dryers		21.45	19.85	-1.61	
11				ect-Related Increases:	10.39	
12				gnificance Threshold:	10	XX
13			Significant	Emissions Increase?	YES	50000g
14	Notes:					
15	Į	ecione for th	a proposed direct fired DD0	2 dayer are zero since the	e unit will be newly constructed. The existing DDG coo	ler and transport
	• • • • • • • • • • • • • • • • • • • •		• •	•	d DDG dryer. However, emissions from these operation	•
		,			the cooler and transport baseline emissions are conser	-
16	well.		· · · · · · · · · · · · · · · · · · ·	,		
17	(h) See Table C-1 fo	or post-proje	ect emission rates from the	proposed direct-fired DD	G Dryer. See Table C-4 for post-project emission rates	from the Cooler and
18	. ,				mitted Emissions - Past Actual Emissions	
19	· · · •			•	as a back-up system for the proposed direct-fired DDG	dryer, but will not be
20	()		J (1			<i>y y</i>
21						
22	Do not include with applica	ation_				
23	Contemporaneous Em	ission Cl	hanges - Netting Ana	lysis		
24	Project Name/Descrip	otion	Actual Emissions Before the Change (tpy)	Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)
25	Proposed Project Incre	93696	0	10.39	10.39	10.39

24	Project Name/Description	Actual Emissions Before the Change (tpy)	Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)
25	Proposed Project Increases	0	10.39	10.39	10.39
26	Proposed Project Decreases ^(e)	21.45	19.85	-1.61	-1.61
	Creditable Contemporaneous				
27	Increases/Decreases ^(f,g)				
	Permit 029-32386-00005	-		0.41	0.41
28	(12/17/12)			0.11	U. 11
29				Total Contemporaneous Net Emissions Change	9.19
30				Significance Threshold:	10
31				Significant Net Emissions Increase?	NO
32					
33	(e) Project related emission dec	reases are associated wit	h the conversion of the ex	isting steam tube Dryers (included with existing EU-32 t	o "backup status").
34	(f) The Creditable Contemporar	neous Increases/Decrease	es were determined based	I on historical projects conducted at MGP of Indiana's La	awrenceburg, IN over
35	(g) The historical projects condu	icted at MGPI's Lawrence	eburg, IN facility over the	preceding 5-year period include the following:	

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АВ	С	D	Е
Table D-4			
Project-Related VOC Emission Chang	es		
Proposed DDG Dryer Project			
MGPI of Indiana, LLC			
Source	Baseline or Past Actual Emissions (tpy) ^(a)	Post-Project Emissions (tpy) ^(b)	Project-Related Emissions Increase/Decrease (tpy) ^(c)
Proposed direct-fired DDG dryer (Proposed EU-39)	0	8.38	8.38
ODG Cooler and Transport System	0	9.16	9.16
Vettoakef FUG27bn, Storage, and Loadout Proposed FUL40)	0	0.05	0.05
xisting Steam Tube Dryers	635.51	587.94	-47.57
	Projec	t-Related Increases:	17.58
			A O
	Sig	nificance Threshold:	40

16 Notes:

18

19

20

21

- (a) Past actual emissions for the proposed direct-fired DDG dryer are zero since the unit will be newly constructed. The existing DDG cooler and transport system (portion of EU-32) will continue to be used downstream of the direct-fired DDG dryer. However, emissions from these operations have not historically been separately quantified from existing steam tube dryer emissions. Therefore the cooler and transport baseline emissions are conservatively set to zero as well.
- (b) See Table C-1 for post-project emission rates from the proposed direct-fired DDG Dryer. See Table C-5 for post-project emission rates from the Cooler and
- (c) Project-Related Emissions Increase/Decrease = Future Projected Actual or Permitted Emissions Past Actual Emissions
- (d) The existing steam tube DDG dryers (portion of EU-32) will be converted to use as a back-up system for the proposed direct-fired DDG dryer, but will not be

23 Do not include with application

24 Contemporaneous Emission Changes - Netting Analysis

24	4 Contemporarieous Emission Changes - Netting Analysis								
25	Project Name/Description	Actual Emissions Before the Change (tpy)	Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)				
26	Proposed Project Increases	0	17.58	17.58	17.58				
27	Proposed Project Decreases ^(e)	635.51	587.94	-47.57	-47.57				
	Creditable Contemporaneous								
28	Increases/Decreases ^(f,g)								
29	Permit 029-32119-00005 (5/31/13)	-	-	2.10	2.10				
30	Permit 029-32386-00005 (12/17/12)	-	-	0.30	0.30				
31				Total Contemporaneous Net Emissions Change	-27.59				
32				Significance Threshold:	40				
33		000000000000000000000000000000000000000		Significant Net Emissions Increase?	NO				
24									

(e) Project related emission decreases are associated with the conversion of the existing steam tube Dryers (included with existing EU-32 to "backup status"). See

(f) The Creditable Contemporaneous Increases/Decreases were determined based on historical projects conducted at MGP of Indiana's Lawrenceburg, IN over the

(g) The historical projects conducted at MGPI's Lawrenceburg, IN facility over the preceding 5-year period include the following:

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A	В	C	D	E	F
Table D-5					
Project-Rela	ted SO ₂ Emission Change	es			
	DG Dryer Project				
MGPI of Indi	ana, LLC				
	Source	Baseline or Past Actual Emissions (tpy) ^(a)	Post-Project Emissions (tpy) ^(b)	Project-Related Emissions Increase/Decrease (tpy) ^(c)	
(Proposed El	,	0	18.8	18.8	
(portion of El	and Transport System	0	0	0	
Existing Stea	m Tube Dryers	0	0	0	
1	000000000000000000000000000000000000000	Proje	ct-Related Increases:	18.8	
2			gnificance Threshold:	40	
3		Significant	Emissions Increase?	NO	
1					
Notes:	Dont actual aminaisna for th	no mean and direct fixed DDC	durar ara wara sinaa tha uu	it will be nearly constructed. The eviction DDC cools	ar and transport avatam
(a)				it will be newly constructed. The existing DDG cooler. However, emissions from these operations have r	
1	**			er and transport baseline emissions are conservative	
	ooparatory quartanea nom	omoung otourn tabo aryor orm	solutio. Therefore the coole	and transport bacomic crimocronic are conservative	
					ry corto zoro do mon.
<u>-</u>	See Table C-1 for post-pro	iect emission rates from the n	onosed direct-fired DDG D	over See Table C-4 for nost-project emission rates	
7 (b)		•	•	eryer. See Table C-4 for post-project emission rates	
7 (b) 3 (c)	Project-Related Emissions	Increase/Decrease = Future F	Projected Actual or Permitte	ed Emissions - Past Actual Emissions	from the Cooler and
(b) (c) (d)	Project-Related Emissions	Increase/Decrease = Future F	Projected Actual or Permitte	• • • •	from the Cooler and
(b) (c) (d)	Project-Related Emissions The existing steam tube DI	Increase/Decrease = Future F	Projected Actual or Permitte	ed Emissions - Past Actual Emissions	from the Cooler and
7 (b) 3 (c) 6 (d) 1 Do not inclu	Project-Related Emissions The existing steam tube DI de with application	Increase/Decrease = Future F DG dryers (portion of EU-32) v	Projected Actual or Permitte will be converted to use as a	ed Emissions - Past Actual Emissions	from the Cooler and
8 (c) 9 (d) 0 Do not inclu	Project-Related Emissions The existing steam tube DI de with application	Increase/Decrease = Future F	Projected Actual or Permitte will be converted to use as a	ed Emissions - Past Actual Emissions	from the Cooler and

23	Project Name/Description	Actual Emissions Before the Change (tpy)	Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)
24	Proposed Project Increases	0	18.84	18.84	18.84
25	Proposed Project Decreases ^(e)	0	0	0	0
	Creditable Contemporaneous				
26	Increases/Decreases ^(f,g)				
	Permit 029-32386-00005	_		0.03	0.03
27	(12/17/12)			0.03	0.03
28				Total Contemporaneous Net Emissions Change	18.87
29				Significance Threshold:	40
30				Significant Net Emissions Increase?	NO
21					

31 32 33 34 (e) Project related emission decreases are associated with the conversion of the existing steam tube Dryers (included with existing EU-32 to "backup status"). See

(f) The Creditable Contemporaneous Increases/Decreases were determined based on historical projects conducted at MGP of Indiana's Lawrenceburg, IN over the

(g) The historical projects conducted at MGPI's Lawrenceburg, IN facility over the preceding 5-year period include the following:

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p						5			
	A	B	C	D	E	F			
1	Table D-6								
2	Project-Related NO _X Emission Changes								
<u>3</u>	MGPI of India	G Dryer Project							
	IVIGEI OI IIIUIA	na, LLC							
5									
6			I	•		1			
7		Source	Baseline or Past Actual Emissions (tpy) ^(a)	Post-Project Emissions (tpy) ^(b)	Project-Related Emissions Increase/Decrease (tpy) ^(c)				
8	(Proposed EU-	•	0	27.9	27.9				
9	(portion of ELL	portion of ELL 23)							
10	Existing Steam	Steam Tube Dryers 0 0							
11	Project-Related Increases: 27.9								
12			Si						
13			Significant						
14	Motos								
16	Notes: (a) Past actual emissions for the proposed direct-fired DDG dryer are zero since the unit will be newly constructed. The existing DDG cooler and transport system (portion of EU-32) will continue to be used downstream of the direct-fired DDG dryer. However, emissions from these operations have not historicall been separately quantified from existing steam tube dryer emissions. Therefore the cooler and transport baseline emissions are conservatively set to zero as well.								
17	(b) S	ee Table C-1 for post-proi	ect emission rates from the	proposed direct-fired DD	G Dryer. See Table C-4 for post-project emission rates	from the Cooler and			
18					mitted Emissions - Past Actual Emissions				
19									
20									
21									
	Do not include with application								
23	Contempor	aneous Emission C	hanges - Netting Ana	lysis					
24	Project	Name/Description	Actual Emissions Before the Change (tpy)	Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)			
25	Propose	d Project Increases	n	27.86	27.86	27.86			

24	Project Name/Description	Actual Emissions Before the Change (tpy)	Potential Emissions After the Change (tpy)	Change (Increase or Decrease) (tpy)	Creditable Increase or Decrease (tpy)			
25	Proposed Project Increases	0	27.86	27.86	27.86			
26	Proposed Project Decreases ^(e)	0	0	0	0			
	Creditable Contemporaneous							
27	Increases/Decreases ^(f,g)							
	Permit 029-32386-00005	_		5.41	5.41			
28	(12/17/12)			U.T1	0.71			
29				Total Contemporaneous Net Emissions Change	33.27			
30				Significance Threshold:	40			
31				Significant Net Emissions Increase?	NO			
32								
33	(e) Project related emission dec	reases are associated wit	h the conversion of the ex	isting steam tube Dryers (included with existing EU-32	to "backup status").			
34	(f) The Creditable Contemporar	neous Increases/Decrease	es were determined based	on historical projects conducted at MGP of Indiana's La	awrenceburg, IN over			
35	(g) The historical projects conducted at MGPI's Lawrenceburg, IN facility over the preceding 5-year period include the following:							

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***************************************	A	В	С	D	E	F				
	Table D-7									
	Project-Related CO Emission Changes									
	Proposed DDG Dryer Project									
	MGPI of Indiana, LLC									
5										
6										
			Baseline or Past Actual	Post-Project	Project-Related Emissions					
		Source		Emissions						
7			Emissions (tpy) ^(a)	(tpy) (b)	Increase/Decrease (tpy) ^(c)					
	Daniel dies									
	(Proposed EL	ect-fired DDG dryer	0	46.4	46.4					
	, ,	na mansport system								
9	(portion of EL	_32)	0	0	0					
	_	n Tube Dryers	0	0	0					
11				ect-Related Increases:	46.4					
12	4		1	ignificance Threshold:	100 NO					
13	3		Significan	t Emissions Increase?	NO	ı				
14	Notes:									
-10	4	Past actual emissions for the	e proposed direct-fired DDG	dryer are zero since the	unit will be newly constructed. The existing DDG cooler	and transport system				
	1			-	yer. However, emissions from these operations have not					
	1				oler and transport baseline emissions are conservatively	-				
16		, , ,	,		,					
17		See Table C-1 for post-proid	ect emission rates from the n	ronosed direct-fired DDG	Dryer. See Table C-4 for post-project emission rates fro	om the Cooler and				
18	- ` ´				tted Emissions - Past Actual Emissions	in the Gooler and				
19	3	-		-	s a back-up system for the proposed direct-fired DDG dr	ver but will not be				
20	1 "	The exicting electricabe DD	o dryoro (portion of Eo oz)	viii bo convented to doo d	o a baok ap bystom for the proposed allocatined bbo at	yor, but will not bo				
21	1									
22										
23	Do not include with application									
24	Contempo	raneous Emission C	hanges - Netting Ana	lysis						
	-		Actual Emissions	Potential Emissions	Change	Craditable Incres				
	Draige	t Name/Description	Before the Change	After the Change	Change (Increase or Decrease)	Creditable Increase or Decrease				
		r wame/nescribuon	(tpy)	(tpy)	(increase or Decrease) (tpy)	(tpy)				
25	-									
26	·	ed Project Increases	0	46.43	46.43	46.43				
27	Propose	d Proiect Decreases ^(e)	0	l 0 l	0	0				

26	Proposed Project Increases	0	46.43	46.43	46.43		
27	Proposed Project Decreases ^(e)	0	0	0	0		
	Creditable Contemporaneous						
28	Increases/Decreases ^(f,g)						
	Permit 029-32386-00005			4.54	4.54		
29	(12/17/12)	_		4.54	4.54		
30				Total Contemporaneous Net Emissions Change	50.97		
31				Significance Threshold:	100		
32				Significant Net Emissions Increase?	NO		
33							
34	(e) Project related emission decreases are associated with the conversion of the existing steam tube Dryers (included with existing EU-32 to "backup status"). See						
35	(f) The Creditable Contemporaneous Increases/Decreases were determined based on historical projects conducted at MGP of Indiana's Lawrenceburg, IN over the						
36	(g) The historical projects conducted at MGPI's Lawrenceburg, IN facility over the preceding 5-year period include the following:						

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<u> </u>	A	В	С	D	E	F	G
1	Table D-8		I	<u> </u>		<u>'</u>	
2	Past Actual Emissions From Existing Steam-tube Dryer System						
	Proposed DDG Dryer Project						
	MGPI of Indiana, LLC						
5							
	EU-32 Rotary Dryers, Cooler and Transport System						
7	DM DM DM Faireign						
8	PM, PM ₁₀ , PM _{2.5} Emissions	***************************************	T	T. Ourtedlad		***************************************	
			Dryer Feed	Controlled Emission	Control	led	
	Constituent		Rate ^(a)	Factor ^(b)	Emissio	ns ^(c)	
9			(ton/yr)	(lb/ton)	(ton/y	r)	
10	PM			0.27	21.5		
11	PM10		158,894	0.27	21.5		
12	PM2.5			0.27	21.5		
13							
	Notes:						
15	(a)			n tube dryer system			
16	(b)	Controlled emiss	ion Factor from A	P-42, Table 9.9.7-1.	The emissi	on	
17	(c)	Methodology and	Sample Calculati	ons:			
18		Controlled Emission	ons (ton/yr) = Usage	e (ton/yr) x EF (lb/ton)	/ 2,000 lb/ton		
19		PM2.5 emissions of	conservatively assu	med to be equal to PN	/110 emissions	3 .	
20							
21		158,894 ton	0.27 lb PM	ton	=	21.5	ton PM
22		yr	ton	2,000 lb			yr
23							
24							
25							
26							
27	VOC Emissions		•	11122	T	1	
			Water	VOC Content of	VOC from		
	Dryer Feed Rate (ton/yr)		Content ^(b)	Water ^(b)	Dryers		
28			(% by wt)	(lb VOC/lb water)	(ton/yr)		
29	158,894		66.66%	0.006	635.5		
30			1		1	I	
	Notes:						
32	(a)	Feed (wet cake)	into existing stean	n tube dryer system	is taken fron	n	
33	(b) Water content (% wt) and VOC content of water (lb VOC/lb water) taken						
34	(c) Methodology and Sample Calculations:						
35	VOC (ton/yr) = Dryer Feed Rate (ton/yr) x Water Content of Feed (% by wt) x (lb VOC/lb wat						
36		. 00 (tolligi) - Diy	5. 1 554 Maio (1011/)	., A Tracor Contont of	. 000 (70 by V	, A (ID '	. John Wall
37		158,894 ton	66.66 % wt	0.006 lb VOC	***	635.5	ton VOC
38		yr	ton	lb water	•		yr